

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P199571

Luminaire Tested: **S125-DIP-ULO-LO-40-X-X0048-1D-UDD-1-5-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P199571  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P27900 P27900)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125-DIP-ULO-LO-40-X-X0048-1D-UDD-1-5-W  
Description: DEFINE 5-INCH DIRECT/INDIRECT PENDANT LED LUMINAIRE  
UPLIGHT LLO-4000K, SATIN WHITE DIFFUSER  
DOWNLIGHT LLO-4000K, SATIN WHITE DIFFUSER  
Light Source: -  
757G  
Ballast/Driver: ELECTRONIC DRIVERS

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3091.5 lumens  
Efficiency: N/A  
Efficacy: 114.9 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.16 / 1.29  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4.08' x H: 0.38')  
CIE Type: General Diffuse

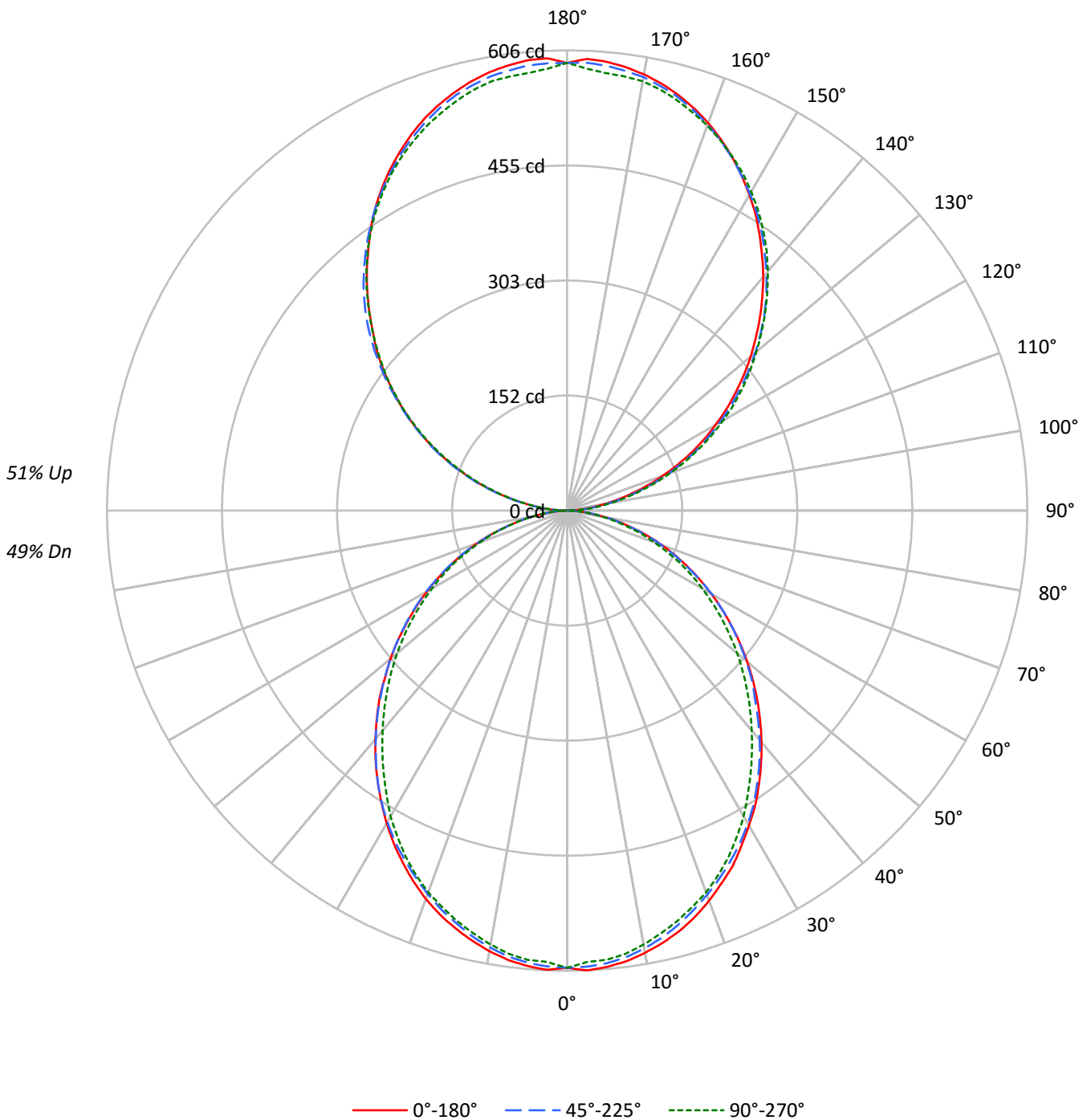
Input Watts (W): 26.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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CATALOG NUMBER: S125-DIP-ULO-LO-40-X-X0048-1D-UDD-1-5-W

### Luminous Intensity Polar Plot





TEST NUMBER: P199571

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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| RF  | 20  |     |     |     | 20 |    |    |    | 20 |    |    |    | 20 |    |    |    | 20 |    |
| RC  | 80  |     |     |     | 70 |    |    |    | 50 |    |    |    | 30 |    |    |    | 10 | 0  |
| RW  | 70  | 50  | 30  | 10  | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0  |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 107 | 107 | 107 | 107 | 98 | 98 | 98 | 98 | 83 | 83 | 83 | 68 | 68 | 68 | 55 | 55 | 55 | 49 |
| 1   | 98  | 93  | 89  | 86  | 90 | 86 | 83 | 80 | 73 | 70 | 68 | 60 | 58 | 57 | 49 | 48 | 46 | 41 |
| 2   | 89  | 82  | 75  | 70  | 82 | 75 | 70 | 66 | 64 | 60 | 56 | 53 | 50 | 48 | 43 | 41 | 39 | 35 |
| 3   | 81  | 72  | 64  | 59  | 74 | 66 | 60 | 55 | 56 | 51 | 47 | 47 | 43 | 40 | 38 | 36 | 33 | 29 |
| 4   | 74  | 63  | 56  | 50  | 68 | 59 | 52 | 47 | 50 | 45 | 40 | 42 | 38 | 35 | 34 | 31 | 29 | 25 |
| 5   | 68  | 57  | 48  | 43  | 62 | 52 | 45 | 40 | 45 | 39 | 35 | 37 | 33 | 30 | 31 | 28 | 25 | 22 |
| 6   | 63  | 51  | 43  | 37  | 58 | 47 | 40 | 35 | 40 | 35 | 30 | 34 | 30 | 26 | 28 | 25 | 22 | 19 |
| 7   | 58  | 46  | 38  | 32  | 53 | 43 | 36 | 30 | 36 | 31 | 27 | 31 | 26 | 23 | 25 | 22 | 20 | 17 |
| 8   | 54  | 42  | 34  | 29  | 50 | 39 | 32 | 27 | 33 | 28 | 24 | 28 | 24 | 21 | 23 | 20 | 18 | 15 |
| 9   | 50  | 38  | 31  | 25  | 46 | 35 | 29 | 24 | 31 | 25 | 21 | 26 | 22 | 19 | 22 | 18 | 16 | 14 |
| 10  | 47  | 35  | 28  | 23  | 43 | 33 | 26 | 22 | 28 | 23 | 19 | 24 | 20 | 17 | 20 | 17 | 15 | 13 |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 90°  | 180° |
|-----|------|------|------|
| 0°  | 3809 | 3809 | 3809 |
| 5°  | 3800 | 3496 | 3793 |
| 10° | 3738 | 3217 | 3724 |
| 15° | 3662 | 2953 | 3639 |
| 20° | 3562 | 2713 | 3545 |
| 25° | 3455 | 2473 | 3425 |
| 30° | 3322 | 2235 | 3297 |
| 35° | 3195 | 1997 | 3157 |
| 40° | 3054 | 1779 | 3011 |
| 45° | 2904 | 1579 | 2862 |
| 50° | 2746 | 1388 | 2693 |
| 55° | 2576 | 1200 | 2515 |
| 60° | 2393 | 1017 | 2328 |
| 65° | 2194 | 839  | 2115 |
| 70° | 1959 | 651  | 1867 |
| 75° | 1644 | 463  | 1529 |
| 80° | 1243 | 288  | 1138 |
| 85° | 744  | 125  | 652  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 56.6   | 1.8       |
| 10°-20°   | 158.9  | 5.1       |
| 20°-30°   | 233.5  | 7.6       |
| 30°-40°   | 269.6  | 8.7       |
| 40°-50°   | 267.3  | 8.6       |
| 50°-60°   | 231.8  | 7.5       |
| 60°-70°   | 169.3  | 5.5       |
| 70°-80°   | 92.5   | 3.0       |
| 80°-90°   | 24.1   | 0.8       |
| 90°-100°  | 29.3   | 0.9       |
| 100°-110° | 105.6  | 3.4       |
| 110°-120° | 187.8  | 6.1       |
| 120°-130° | 250.5  | 8.1       |
| 130°-140° | 283.4  | 9.2       |
| 140°-150° | 279.9  | 9.1       |
| 150°-160° | 237.0  | 7.7       |
| 160°-170° | 158.7  | 5.1       |
| 170°-180° | 55.7   | 1.8       |
| 0°-30°    | 449.0  | 14.5      |
| 0°-40°    | 718.6  | 23.2      |
| 0°-60°    | 1217.7 | 39.4      |
| 0°-90°    | 1503.7 | 48.6      |
| 90°-120°  | 322.6  | 10.4      |
| 90°-150°  | 1136.4 | 36.8      |
| 90°-180°  | 1588.0 | 51.4      |
| 0°-180°   | 3091.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 45° | 90° | 135° | 180° | Flux |
|------|-----|-----|-----|------|------|------|
| 0°   | 602 | 602 | 602 | 602  | 602  |      |
| 5°   | 603 | 598 | 594 | 598  | 602  | 57   |
| 15°  | 573 | 565 | 560 | 563  | 569  | 161  |
| 25°  | 516 | 509 | 503 | 507  | 512  | 237  |
| 35°  | 440 | 437 | 422 | 435  | 435  | 275  |
| 45°  | 354 | 350 | 335 | 348  | 349  | 273  |
| 55°  | 264 | 264 | 249 | 259  | 258  | 236  |
| 65°  | 175 | 174 | 164 | 170  | 169  | 174  |
| 75°  | 90  | 90  | 82  | 84   | 84   | 96   |
| 85°  | 21  | 22  | 20  | 20   | 18   | 24   |
| 90°  | 1   | 2   | 1   | 1    | 1    | 2    |
| 95°  | 20  | 24  | 26  | 28   | 26   | 23   |
| 105° | 90  | 96  | 100 | 104  | 102  | 96   |
| 115° | 180 | 188 | 190 | 194  | 193  | 178  |
| 125° | 271 | 277 | 282 | 286  | 283  | 242  |
| 135° | 359 | 368 | 369 | 376  | 368  | 277  |
| 145° | 442 | 447 | 450 | 453  | 452  | 277  |
| 155° | 514 | 513 | 515 | 518  | 521  | 237  |
| 165° | 566 | 564 | 559 | 566  | 571  | 160  |
| 175° | 594 | 588 | 578 | 588  | 595  | 56   |
| 180° | 590 | 590 | 590 | 590  | 590  |      |



TEST NUMBER: P199571

CATALOG NUMBER: S125-DIP-ULO-LO-40-X-X0048-1D-UDD-1-5-W

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   | 112.5° | 135°  | 157.5° | 180°  |
|--------|-------|-------|-------|-------|-------|--------|-------|--------|-------|
| 0°     | 602.0 | 602.0 | 602.0 | 602.0 | 602.0 | 602.0  | 602.0 | 602.0  | 602.0 |
| 2.5°   | 606.1 | 599.8 | 601.3 | 600.2 | 595.0 | 599.4  | 600.9 | 598.7  | 605.3 |
| 5°     | 603.1 | 596.8 | 598.3 | 596.8 | 593.9 | 596.1  | 597.6 | 595.4  | 602.0 |
| 7.5°   | 598.7 | 592.1 | 593.2 | 591.7 | 588.7 | 590.6  | 592.4 | 590.2  | 596.8 |
| 10°    | 591.3 | 585.1 | 585.4 | 583.6 | 580.3 | 582.5  | 584.3 | 582.5  | 589.1 |
| 12.5°  | 582.8 | 576.2 | 576.2 | 573.3 | 570.3 | 572.2  | 574.7 | 573.3  | 579.9 |
| 15°    | 572.9 | 565.9 | 564.8 | 562.9 | 559.6 | 561.8  | 562.9 | 562.6  | 569.2 |
| 17.5°  | 560.7 | 553.4 | 551.9 | 551.5 | 547.5 | 550.4  | 550.8 | 549.7  | 557.8 |
| 20°    | 546.7 | 539.7 | 538.6 | 538.3 | 534.9 | 537.2  | 537.2 | 535.7  | 544.2 |
| 22.5°  | 531.3 | 524.6 | 524.3 | 523.5 | 519.8 | 522.4  | 522.4 | 520.2  | 528.7 |
| 25°    | 516.2 | 508.1 | 509.2 | 507.3 | 502.9 | 506.6  | 506.9 | 503.3  | 511.7 |
| 27.5°  | 497.4 | 491.1 | 493.3 | 490.0 | 484.1 | 488.9  | 491.1 | 485.6  | 494.4 |
| 30°    | 478.9 | 472.3 | 476.0 | 470.1 | 464.9 | 469.4  | 473.4 | 466.4  | 475.3 |
| 32.5°  | 460.9 | 453.2 | 457.6 | 450.2 | 442.8 | 448.4  | 455.0 | 448.4  | 455.4 |
| 35°    | 440.3 | 434.0 | 436.6 | 428.8 | 421.5 | 427.0  | 435.1 | 428.8  | 435.1 |
| 37.5°  | 419.6 | 414.5 | 416.3 | 407.1 | 399.7 | 405.3  | 413.7 | 408.9  | 414.5 |
| 40°    | 398.3 | 394.6 | 394.6 | 385.4 | 378.0 | 383.2  | 392.0 | 389.4  | 392.7 |
| 42.5°  | 376.2 | 374.7 | 371.7 | 363.6 | 356.6 | 361.8  | 370.3 | 369.5  | 371.0 |
| 45°    | 354.4 | 354.4 | 349.6 | 341.2 | 335.3 | 340.1  | 347.8 | 349.6  | 349.3 |
| 47.5°  | 331.9 | 333.8 | 329.7 | 320.5 | 313.9 | 318.7  | 325.7 | 329.0  | 325.3 |
| 50°    | 309.5 | 312.8 | 307.6 | 299.5 | 292.2 | 297.3  | 303.2 | 307.6  | 303.6 |
| 52.5°  | 287.0 | 291.1 | 285.5 | 277.8 | 270.4 | 275.2  | 281.1 | 286.3  | 281.1 |
| 55°    | 264.2 | 268.9 | 263.8 | 255.7 | 248.7 | 253.1  | 259.0 | 264.2  | 257.9 |
| 57.5°  | 241.7 | 246.1 | 241.7 | 233.6 | 226.9 | 231.0  | 237.3 | 241.3  | 235.8 |
| 60°    | 219.2 | 224.0 | 219.6 | 211.8 | 205.6 | 208.9  | 214.8 | 218.8  | 213.3 |
| 62.5°  | 197.1 | 201.2 | 196.4 | 190.1 | 185.3 | 186.8  | 192.3 | 197.1  | 191.2 |
| 65°    | 175.4 | 179.1 | 173.9 | 168.4 | 164.3 | 165.1  | 169.8 | 172.4  | 169.1 |
| 67.5°  | 154.0 | 158.1 | 152.5 | 147.4 | 142.6 | 144.1  | 148.1 | 151.8  | 147.7 |
| 70°    | 132.6 | 136.7 | 130.8 | 126.4 | 122.3 | 123.1  | 126.4 | 130.4  | 126.4 |
| 72.5°  | 111.6 | 114.9 | 110.9 | 105.7 | 102.8 | 103.5  | 105.4 | 109.1  | 105.0 |
| 75°    | 90.3  | 93.9  | 89.5  | 85.5  | 82.5  | 83.3   | 84.4  | 87.3   | 84.0  |
| 77.5°  | 70.4  | 72.9  | 70.0  | 66.7  | 64.8  | 65.2   | 65.6  | 67.8   | 64.8  |
| 80°    | 51.9  | 54.2  | 52.3  | 49.7  | 48.3  | 48.3   | 48.3  | 50.1   | 47.5  |
| 82.5°  | 35.4  | 37.6  | 36.1  | 34.3  | 33.2  | 32.1   | 32.8  | 34.3   | 32.1  |
| 85°    | 21.0  | 22.8  | 22.1  | 20.3  | 19.5  | 18.8   | 19.5  | 20.3   | 18.4  |
| 87.5°  | 9.6   | 11.1  | 9.9   | 8.1   | 7.4   | 6.6    | 6.6   | 7.7    | 6.3   |
| 90°    | 0.7   | 1.8   | 1.5   | 1.1   | 0.7   | 0.7    | 1.1   | 1.5    | 0.7   |
| 92.5°  | 7.0   | 9.6   | 9.6   | 8.5   | 10.3  | 11.8   | 14.4  | 14.4   | 12.5  |
| 95°    | 20.3  | 22.8  | 23.9  | 24.7  | 26.5  | 27.3   | 28.0  | 28.0   | 25.8  |
| 97.5°  | 34.6  | 38.3  | 39.1  | 40.2  | 42.4  | 42.7   | 43.8  | 44.2   | 41.6  |
| 100°   | 50.8  | 55.3  | 56.0  | 57.5  | 60.1  | 60.4   | 61.9  | 62.6   | 60.1  |
| 102.5° | 69.3  | 74.4  | 75.5  | 76.6  | 78.5  | 79.9   | 81.8  | 82.9   | 79.9  |
| 105°   | 89.5  | 95.8  | 96.5  | 98.0  | 100.2 | 101.7  | 103.9 | 104.6  | 102.1 |
| 107.5° | 112.0 | 116.8 | 119.0 | 119.7 | 121.9 | 123.4  | 126.4 | 126.7  | 124.5 |
| 110°   | 134.1 | 138.5 | 141.5 | 142.2 | 144.4 | 145.9  | 148.8 | 148.8  | 147.0 |



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CATALOG NUMBER: S125-DIP-ULO-LO-40-X-X0048-1D-UDD-1-5-W

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   | 112.5° | 135°  | 157.5° | 180°  |
|--------|-------|-------|-------|-------|-------|--------|-------|--------|-------|
| 112.5° | 156.9 | 161.7 | 164.3 | 165.1 | 167.6 | 168.7  | 171.7 | 172.1  | 170.2 |
| 115°   | 180.2 | 184.6 | 187.5 | 188.3 | 190.5 | 191.9  | 194.5 | 195.3  | 193.4 |
| 117.5° | 203.4 | 207.8 | 210.0 | 211.5 | 214.1 | 215.2  | 216.6 | 217.7  | 215.9 |
| 120°   | 225.8 | 230.3 | 232.1 | 234.3 | 236.9 | 238.0  | 240.2 | 239.5  | 238.4 |
| 122.5° | 248.7 | 252.7 | 254.6 | 257.2 | 260.1 | 260.5  | 261.9 | 261.6  | 260.8 |
| 125°   | 270.8 | 274.1 | 277.4 | 278.9 | 282.2 | 282.2  | 286.3 | 282.9  | 282.9 |
| 127.5° | 293.3 | 295.8 | 300.3 | 301.0 | 303.9 | 304.3  | 309.1 | 304.3  | 305.4 |
| 130°   | 315.4 | 317.2 | 323.1 | 323.1 | 325.3 | 326.1  | 332.3 | 325.7  | 327.2 |
| 132.5° | 337.1 | 338.6 | 345.6 | 344.8 | 347.1 | 347.8  | 354.8 | 347.1  | 346.7 |
| 135°   | 358.8 | 359.6 | 367.7 | 366.6 | 368.8 | 369.9  | 376.2 | 367.7  | 368.1 |
| 137.5° | 380.2 | 379.8 | 388.3 | 387.9 | 390.2 | 390.9  | 396.8 | 386.8  | 389.4 |
| 140°   | 401.9 | 399.4 | 408.2 | 408.9 | 411.2 | 411.9  | 415.9 | 408.2  | 410.4 |
| 142.5° | 421.8 | 420.7 | 427.4 | 428.5 | 431.4 | 431.4  | 435.1 | 427.4  | 430.3 |
| 145°   | 442.1 | 439.5 | 446.9 | 446.9 | 450.2 | 449.8  | 452.8 | 447.6  | 451.7 |
| 147.5° | 462.0 | 458.7 | 464.9 | 465.3 | 468.3 | 468.3  | 470.8 | 465.7  | 470.8 |
| 150°   | 480.1 | 477.1 | 481.5 | 481.9 | 484.8 | 484.5  | 487.1 | 484.5  | 488.9 |
| 152.5° | 497.4 | 494.4 | 497.4 | 497.0 | 500.7 | 499.6  | 502.9 | 500.7  | 505.8 |
| 155°   | 513.9 | 510.6 | 513.2 | 511.7 | 514.7 | 514.3  | 518.0 | 517.3  | 521.3 |
| 157.5° | 529.1 | 525.4 | 527.6 | 525.7 | 527.6 | 527.9  | 532.0 | 531.6  | 536.1 |
| 160°   | 543.1 | 539.4 | 540.8 | 537.5 | 539.4 | 539.7  | 544.9 | 544.9  | 549.3 |
| 162.5° | 555.6 | 551.5 | 553.0 | 547.8 | 549.7 | 549.7  | 556.3 | 556.3  | 560.7 |
| 165°   | 566.3 | 562.6 | 563.7 | 557.4 | 559.3 | 559.6  | 566.3 | 566.6  | 570.7 |
| 167.5° | 575.8 | 571.8 | 572.2 | 566.3 | 567.7 | 568.1  | 574.0 | 574.7  | 579.5 |
| 170°   | 583.2 | 579.5 | 579.5 | 572.9 | 574.0 | 574.4  | 580.6 | 581.7  | 586.5 |
| 172.5° | 589.1 | 585.1 | 584.3 | 577.3 | 576.6 | 578.4  | 584.7 | 586.9  | 591.3 |
| 175°   | 593.5 | 589.1 | 588.0 | 581.0 | 578.4 | 582.1  | 588.4 | 590.2  | 595.4 |
| 177.5° | 595.4 | 590.9 | 590.2 | 582.8 | 582.5 | 583.6  | 589.5 | 591.7  | 596.1 |
| 180°   | 589.5 | 589.5 | 589.5 | 589.5 | 589.5 | 589.5  | 589.5 | 589.5  | 589.5 |

(END OF REPORT)